

REMARKS

Applicant has carefully reviewed and considered the Office Action of October 24, 2007, including the cited prior art. In response thereto, Applicant amended claims 1 and 3, and makes the following remarks.

Claims 3, 4, and 11-14 stand rejected under 35 USC 112, second paragraph, as being indefinite. With the present amendment, applicant has amended claim 3 to provide sufficient antecedent basis.

Claims 1, 2, 4-8, 10 and 15-18 stand rejected under 35 USC 102(b) as being anticipated by Laughlin et al. (USP 3,784,780). Claim 9 stands rejected under 35 USC 103(a) as being unpatentable over Laughlin in view of Ottenwaelder (USP 6,160,248).

Laughlin discloses an apparatus and method of heating wear surfaces on a camshaft wherein at least two fixed inductors surrounding the camshaft simultaneously heat two or more axially spaced surfaces. The workpiece being moved successively through the inductors until all of the wear surfaces have been inductively heated for quench hardening.

Ottenwaelder discloses a device for electro-inductive hardening of bearing surfaces and transition radii in crankshafts wherein the inductor has two inductor segments, one of which being the input branch and the other being the return branch. The disadvantages of this form of an inductor is an inhomogeneous hardening zone and a difficult determination of hardening depth.


By contrast to both Laughlin individually as well as any *potential* Laughlin and Ottenwaelder combination, with the present amendment, applicant has amended claim 1 to include the feature that a return branch of the inductor half-shell has only one inductor segment that is displaced rearwardly relative to the surface of the component to be hardened. As such, the

two inductor segments of inductor half-shell are placed near the surface of the component to be hardened, whereas the return segment of the inductor half-shell has a distance from the component to be hardened. With this displacement of the return branch it is possible to use only one inductor branch through which current flows leading to a more homogeneous hardening zone and the possibility to better exploit prescribed tolerances.

Applicant respectfully submits that in light of the arguments set forth in this response, this application is now in condition for allowance, and requests that a timely Notice of Allowance be issued. However, should Examiner be of the opinion that further amendments or response is required, Applicant encourages Examiner to contact the undersigned attorney at the telephone number set forth below.

Respectfully submitted,

COOK, ALEX, McFARRON, MANZO,
CUMMINGS & MEHLER, LTD.

By: 
David Mundt, Reg. No. 41,207
200 West Adams Street
Suite 2850
Chicago, Illinois 60606
(312) 984-0144 (Telephone)
(312) 984-0146 (Facsimile)